

**WHAT IS CLAIMED IS:**

1. A system for providing position information of a target mobile communication terminal whose position is to be found out, comprising:

5 a first mobile communication terminal for transmitting a position tracking signal for determining the position of said target mobile communication terminal, and calculating and transmitting first individual position information on the basis of acquisition assistance sensitive assistance (AASA) information at intervals of a predetermined time, said AASA information including a received signal strength indicator of radio waves transmitted from a GPS (Global Positioning System) satellite;

10 a second mobile communication terminal being said target mobile communication terminal, said second mobile communication terminal calculating and transmitting second individual position information on the basis of said AASA information at intervals of a predetermined time; and

15 a mobile communication server for generating said AASA information using said radio waves, transmitting the generated AASA information to said first mobile communication terminal and second mobile communication terminal upon receiving said position tracking signal transmitted from said first mobile communication terminal, and transferring said second individual position information transmitted from said second mobile communication terminal to said first mobile communication terminal,

20 wherein said first mobile communication terminal is adapted to calculate correlative position information between it and said second mobile communication terminal on the basis of said first individual position information and second individual position information at intervals of a predetermined time and output the calculated correlative position information to a screen.

25 2. The system as set forth in claim 1, wherein said first mobile communication terminal is adapted to mark said first individual position information, second individual position information and correlative position information on a map,

output the resulting map to said screen and, whenever any of said first individual position information, second individual position information and correlative position information are changed, update the existing information marked on said map with the changed information and mark the updated information on said map.

5           3.     The system as set forth in claim 2, wherein said first mobile communication terminal is adapted to, whenever said first individual position information and second individual information are calculated, update moving paths of said first mobile communication terminal and second mobile communication terminal on the basis of the calculated first individual position information and second individual  
10   information and mark the updated moving paths on said map.

          4.     The system as set forth in claim 3, wherein each of said first and second individual position information includes at least one of latitude information, longitude information and altitude information of a corresponding one of said first and second mobile communication terminals.

15           5.     The system as set forth in claim 4, wherein said correlative position information includes at least one of information regarding a direction and distance from said first mobile communication terminal to said second mobile communication terminal.

          6.     A method for providing position information of a target mobile  
20   communication terminal whose position is to be determined, using a communication system, said communication system including a mobile communication server, a mobile communication network and first and second mobile communication terminals connected to said mobile communication server over said mobile communication network, said second mobile communication terminal being said target mobile  
25   communication terminal, said method comprising the steps of:

a) transmitting a position tracking signal for determining the position of said second mobile communication terminal to said mobile communication server, said server generating AASA information for position information calculation on the basis of radio waves transmitted from a GPS satellite;

5        b) calculating first individual position information of said first mobile communication terminal on the basis of said AASA information transmitted from said mobile communication server in response to said position tracking signal received thereby;

10       c) calculating second individual position information of said second mobile communication terminal on the basis of said AASA information transmitted from said mobile communication server in response to said position tracking signal received thereby, transferring the calculated second individual position information to said first mobile communication terminal through said mobile communication server and determining whether said second individual position information has been received by  
15       said first mobile communication terminal;

d) calculating correlative position information between said first mobile communication terminal and said second mobile communication terminal on the basis of said first individual position information and second individual position information if said second individual position information is determined to have been received; and

20       e) outputting the calculated correlative position information to a screen.

7.       The method as set forth in claim 6, wherein said correlative position information includes said first individual position information and said second individual position information; and

25       wherein said step e) includes the step e-1) of outputting said correlative position information including said first individual position information and said second individual position information to said screen.

8. The method as set forth in claim 7, wherein said step e) further includes the step e-2) of marking said correlative position information on a map and outputting said map marked with said correlative position information to said screen.

9. The method as set forth in claim 8, wherein each of said first and second individual position information includes at least one of latitude information, longitude information and altitude information of a corresponding one of said first and second mobile communication terminals.

10. The method as set forth in claim 9, wherein said correlative position information includes at least one of information regarding a direction and distance from said first mobile communication terminal to said second mobile communication terminal.

11. A system for providing position information of a target mobile communication terminal whose position is to be determined, comprising:

a first mobile communication terminal for transmitting a position tracking signal for determining the position of said target mobile communication terminal, and calculating and transmitting first individual position information on the basis of AASA information at intervals of a predetermined time, said AASA information including a received signal strength indicator of radio waves transmitted from a GPS satellite;

a second mobile communication terminal being said target mobile communication terminal, said second mobile communication terminal calculating and transmitting second individual position information on the basis of said AASA information at intervals of a predetermined time; and

a mobile communication server for generating said AASA information using said radio waves, transmitting the generated AASA information to said first mobile communication terminal and second mobile communication terminal upon receiving said position tracking signal, calculating correlative position information between said

first mobile communication terminal and said second mobile communication terminal on the basis of said first individual position information and second individual position information whenever said first and second individual position information are received and transmitting the calculated correlative position information to said first mobile communication terminal,

wherein said first mobile communication terminal is adapted to update said correlative position information whenever said correlative position information is received and output the updated correlative position information to a screen.

12. The system as set forth in claim 11, wherein said mobile communication server is adapted to mark said first individual position information, second individual position information and correlative position information on a map, transmit the resulting map to said first mobile communication terminal and, whenever any of said first individual position information, second individual position information and correlative position information are changed, update the existing information marked on said map with the changed information, mark the updated information on said map and transmit the resulting map to said first mobile communication terminal.

13. The system as set forth in claim 12, wherein said mobile communication server is adapted to, whenever said first individual position information and second individual information are received, update moving paths of said first mobile communication terminal and second mobile communication terminal on the basis of the received first individual position information and second individual information, mark the updated moving paths on said map and transmit said map marked with the updated moving paths to said first mobile communication terminal.

14. The system as set forth in claim 13, wherein each of said first and second individual position information includes at least one of latitude information, longitude

information and altitude information of a corresponding one of said first and second mobile communication terminals.

15. The system as set forth in claim 14, wherein said correlative position information includes at least one of information regarding a direction and distance from  
5 said first mobile communication terminal to said second mobile communication terminal.

16. A method for providing position information of a target mobile communication terminal whose position is to be determined, using a communication system, said communication system including a mobile communication server, a mobile  
10 communication network and first and second mobile communication terminals connected to said mobile communication server over said mobile communication network, said second mobile communication terminal being said target mobile communication terminal, said method comprising the steps of:

a) transmitting a position tracking signal for determining the position of said  
15 second mobile communication terminal to said mobile communication server, said server generating AASA information for position information calculation on the basis of radio waves transmitted from a GPS satellite;

b) calculating first individual position information of said first mobile communication terminal by said first mobile communication terminal and second  
20 individual position information of said second mobile communication terminal by said second mobile communication terminal on the basis of said AASA information transmitted to said first mobile communication terminal and second mobile communication terminal by said mobile communication server in response to said position tracking signal received thereby and transmitting the calculated first and second  
25 individual position information to said mobile communication server;

c) calculating and transmitting correlative position information between said first mobile communication terminal and said second mobile communication terminal on the

basis of said first individual position information and second individual position information by said mobile communication server and receiving the transmitted correlative position information by said first mobile communication terminal; and

d) outputting the received correlative position information to a screen.

5           17.     The method as set forth in claim 16, wherein said step d) includes the step d-1) of marking said correlative position information on a map along with said first individual position information and second individual position information and outputting the resulting map to said screen.

10           18.     The method as set forth in claim 17, wherein said step d) further includes the step d-2) of updating said correlative position information outputted to said screen whenever it is received, outputting the updated correlative position information to said screen, marking moving paths of said first mobile communication terminal and second mobile communication terminal on said map on the basis of said first individual position information and second individual position information and outputting the resulting map to said screen.

15           19.     The method as set forth in claim 18, wherein each of said first and second individual position information includes at least one of latitude information, longitude information and altitude information of a corresponding one of said first and second mobile communication terminals.

20           20.     The method as set forth in claim 19, wherein said correlative position information includes at least one of information regarding a direction and distance from said first mobile communication terminal to said second mobile communication terminal.

21. A system for providing position information of a target mobile communication terminal whose position is to be determined, comprising:

a communication terminal for transmitting a position tracking signal for determining the position of said target mobile communication terminal;

5 a first mobile communication terminal for calculating and transmitting first individual position information on the basis of AASA information at intervals of a predetermined time, said AASA information including a received signal strength indicator of radio waves transmitted from a GPS satellite;

10 a second mobile communication terminal being said target mobile communication terminal, said second mobile communication terminal calculating and transmitting second individual position information on the basis of said AASA information at intervals of a predetermined time;

a mobile communication server responsive to said position tracking signal for generating said AASA information using said radio waves and transmitting the generated  
15 AASA information to said first mobile communication terminal and second mobile communication terminal, said mobile communication server receiving and transferring said first individual position information and second individual position information transmitted respectively from said first mobile communication terminal and second mobile communication terminal; and

20 a Web server connected with said communication terminal over a network and with said mobile communication server over a mobile communication network, said Web server calculating correlative position information between said first mobile communication terminal and said second mobile communication terminal on the basis of said first individual position information and second individual position information at  
25 intervals of a predetermined time and transmitting the calculated correlative position information to said communication terminal,

wherein said communication terminal is adapted to receive the transmitted correlative position information and output it to a screen.



22. The system as set forth in claim 21, wherein said Web server is adapted to mark said correlative position information including said first individual position information and second individual position information on a map and provide the resulting map to said communication terminal; and

5 wherein said communication terminal is adapted to receive said map and output it to said screen.

23. The system as set forth in claim 22, wherein each of said first and second individual position information includes at least one of latitude information, longitude information and altitude information of a corresponding one of said first and second  
10 mobile communication terminals.

24. The system as set forth in claim 23, wherein said correlative position information includes at least one of information regarding a direction and distance from said first mobile communication terminal to said second mobile communication terminal.

15 25. A method for providing position information of a target mobile communication terminal whose position is to be determined, using a communication system, said communication system including a communication terminal, a Web server connected with said communication terminal over a network, a mobile communication server connected with said Web server over a mobile communication network, said  
20 mobile communication server generating AASA information for position information calculation using radio waves transmitted from a GPS satellite, and first and second mobile communication terminals connected to said mobile communication network, said second mobile communication terminal being said target mobile communication terminal, said method comprising the steps of:

a) transmitting a position tracking signal for determining the position of said second mobile communication terminal to said mobile communication server via said Web server;

5 b) determining whether calculated correlative position information has been received, where calculated correlative position information is determined by calculating first individual position information of said first mobile communication terminal and second individual position information of said second mobile communication terminal on the basis of said AASA information transmitted to said first mobile communication terminal and second mobile communication terminal by said mobile communication  
10 server in response to said position tracking signal received thereby, and calculating correlative position information between said first mobile communication terminal and said second mobile communication terminal on the basis of the calculated first individual position information and second individual position information by said Web server; and  
15 c), if said correlative position information is determined to have been received, updating the received correlative position information at intervals of a predetermined time and outputting the updated correlative position information to a screen.

26. The method as set forth in claim 25, wherein said step c) includes the step of marking moving paths of said first mobile communication terminal and second mobile communication terminal on a map on the basis of said first individual position  
20 information and second individual position information and outputting the resulting map to said screen.

27. The method as set forth in claim 26, wherein each of said first and second individual position information includes at least one of latitude information, longitude information and altitude information of a corresponding one of said first and second  
25 mobile communication terminals.

28. The method as set forth in claim 27, wherein said correlative position information includes at least one of information regarding a direction and distance from said first mobile communication terminal to said second mobile communication terminal.

5           29. A method for providing position information of a mobile communication terminal having a GPS function, comprising the steps of:

          a) determining whether said mobile communication terminal will be powered off after the lapse of a predetermined period of time in a power-on state;

          b) if it is determined that said mobile communication terminal will be powered  
10 off, requesting a mobile communication server to transmit AASA information for position information calculation, said mobile communication server generating said AASA information on the basis of radio waves transmitted from a GPS satellite;

          c) if said AASA information is received, calculating individual position  
15 information of said mobile communication terminal on the basis of the received AASA information; and

          d) transmitting the calculated individual position information to a different mobile communication terminal linked to said mobile communication terminal through said mobile communication server.

20           30. The method as set forth in claim 29, further comprising the step of generating a short message service (SMS) message including said individual position information after said step c) is performed, and

          wherein said step d) includes the step of transmitting said SMS message to said different mobile communication terminal.